

**MARKING SYSTEM FOR A SEMICONDUCTOR
WAFER TO IDENTIFY PROBLEMS IN MASK LAYERS**

ABSTRACT OF THE DISCLOSURE

Marking system for a semiconductor wafer to identify problems in mask layers. A method for forming a mask which includes the step of first creating at least one drawing layer that defines changes to the structures to be formed on the surface of a semiconductor substrate at one step in the processing thereof, which step involves the use of a mask. The at least one drawing layer will define a pattern region that will either result in removal of the material from the semiconductor substrate in the defined pattern region, or removal of matter from the semiconductor substrate around the defined pattern region. An indicator area is created in the at least one drawing layer, the indicator area having an indicator region disposed therein that will result in removal of material from around the indicator region regardless of whether the mask is a dark tone mask or a clear tone mask, the indicator region appearing in the negative if the mask is a dark tone mask. A mask is then created from the at least one drawing layer as either a dark tone mask having a transparent region corresponding to the defined pattern region for exposing the underlying substrate if the defined pattern region is associated with a process that results in material being removed from around the defined pattern region, or as a clear tone mask having an occluding region corresponding to the defined pattern region if the defined pattern region is associated with a process that results in material being removed from the defined pattern region.